REMARKS

Resolution of Issues Under 35 USC § 112

Each of claims 14-21 is amended by insertion of language in claim 14 to specify the presence of the signaling element.

Claim 17 is also amended to rectify the antecedent basis issue.

Bandaru Does Not Disclose Each Element of the Pending Claims

Bandaru does not disclose the step of containing human protein samples in an array in combination with analyzing those samples by performing the following step:

> providing a plurality of antibodies each having a signaling element wherein each member of the plurality of antibodies is identified as having specific binding affinity to an expression product of a gene sequence.

At the cited section of Bandaru (columns 4 and 60), Bandaru binds capture probes to the addresses of an array, but state that "each address of the plurality having a unique capture probe... ." This is an example of a "capture down" style of array. This type of assay is used to obtain, as it is by the Bandaru invention, information about a particular species (22109) that is the pre-determined target at the assay. The array and assay do not use the antibody binding events across the array for de novo expression profiling. In the present invention, gene expression information in a tissue sample is derived from the differential binding reactions of the "plurality of antibodies" reacting at two discrete sites of the array and when each is identified with an expression product of a gene sequence.

Wagner et al Does Not Anticipate the Presently Claimed Method

Referring to columns 6, 11, 12 and 37 of Wagner et al., Wagner et al. suffer from the same absence of disclosure as does Bandaru. Wagner et al. do not perform the method step of containing two tissue samples onto an array to obtain gene expression analysis. Wagner et al. distinguish their two samples using two identical arrays. Applicants specifically claim the contrary approach using two samples contained in discrete areas of the array. Wagner et al. use protein capture agents as the member of the array. Please note that Wagner et al. specifically state:

> Typically, only one type of protein-capture agent is present on a single patch of the array. If more than one type of protein-capture agent is present on a single patch, all of the protein-capture agents of that patch must share a common binding partner. For instance, a patch may comprise a variety of polyclonal antibodies to the same antigen (although, potentially, the antibodies may bind different epitopes on that same antigen).

Using this approach, Wagner et al. cannot perform the method step of claim 14 quoted above wherein "providing a plurality of antibodies . . . wherein each member of the plurality of antibodies is identified as having specific binding affinity to an expression product of a gene sequence. . . ." Because this element is necessarily lacking from Wagner et al., Wagner et al. cannot anticipate under Section 102(a).

None of the above references meet the limitations of dependent claim 15 wherein antibodies are raised by in vivo immunization of a gene sequence.

In light of the above, applicant requests favorable consideration and allowance of all of the newly presented claims. If the Examiner has any questions regarding the foregoing, or if the Examiner believes that an interview would facilitate the examination of this application, or if any additional information is required, the Examiner is invited to contact the undersigned at 949/567-6700, X 7740.

Applicant	:	Moncef Jendoubi
Appl. No.	:	09/930,715
Examiner	:	My-Chau T. Tran
Docket No.	:	705403.6 (formerly 266/226)

The Commissioner is authorized to charge all applicable fees to ORRICK, HERRINGTON & SUTCLIFFE LLP's Deposit Account No. 150665 and to credit any overpayments to said Deposit Account No. 150665.

Respectfully submitted,
ORRICK, HERRINGTON & SUTCLIFFE LLP

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By: _____
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